Rather than being the starting point many felt it would be, the three-day Open Circuits Conference at the Museum of Modern Art in January 1974 turned out to be a summing up. In less than a decade of individual experimentation by artists and about six years of work at the experimental centers in San Francisco, Boston, and New York, we had been given a completely new grammar, syntax, and experience of television. Concepts of one-way television were radicalized. Colors of intensity and opulence no painter or filmmaker could produce were the new spectrum in visual art. Whatever could be done with the medium in graphic form and dramatic or narrative content had been attempted. Having thus coaxed the genii of television from its little box, at the conference we posed the question, "Now that we have seen the light, how do we illuminate television with it? How do we use the medium's virtually untapped imaginal resources to address human issues via broadcast television?" European and South American delegates seemed especially to be pressing for the end to justify the new means.

The questions of limited access to equipment in the experimental centers (the National Center for Experiments in Television in San Francisco, the WGBH New Television Workshop in Boston, and the WNET TV Lab in New York), and of the relevance of museum and gallery involvement to the video art movement were recurrent themes. But was the real target not broadcast

television? Were we to limit video art's energies to creating products, electronic objets d'art only? Having been given its first large-scale, prestige showing in galleries, video art was logically susceptible to museum acquisition. At a time when many visual artists had ceased producing art objects, it is not so surprising that a curator might look with pleasure at a video cassette, or an installation of monitors and cameras creating environments or various kinds of ingenious feedback situations. Yes, the answer came, video art was capable of producing collectable work, and no, that would not be its only form. Debate was intense, and more questions were presented than answers offered, but the different ways of looking at video art were thoughtfully explored and the final achievement of the conference was a healthy self-examination of the movement since its inception.

Man has long pondered the nature of existence. We now know that the electron is both matter and energy, since it partakes of the qualities of both a particle and a wave. Physicists in the late 1930s had already done much to erase the seeming boundaries between mind and matter. Sir Arthur Stanley Eddington wrote in his The Nature of the Physical World (London, 1928), "The stuff of the world is mind stuff." And Sir James Jeans wrote in The Mysterious Universe (London, 1930), "The stream of knowledge is heading toward a non-mechanical reality; the universe

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begins to look more like a great thought than like a great machine."

Such abstract concepts are difficult to grasp, hard to visualize. But at a video concert (called The Electric Concert) at Southern Methodist University in 1972, I saw a man turn from flesh and blood into pure electrons through the use of video cameras, a synthesizer, and a large-screen video projector. A male dancer, center stage, danced before the large screen with agonized, outreaching gestures up and toward the audience. To his right gaped an open rectangle suggesting a huge television screen. He writhed toward it, stepped into its huge square jaw, and the image of the dancer appeared on the large screen as a body of dazzling, dancing electrons, masses of scintillating light holding to the human form but transcending it. I wish Sir James Jeans had been there. The conversion of technological knowledge to vision is the central problem of video art, since the video artist's medium is light itself, not sunlight, but pure electrons.

The history of video art in the studio sense goes back to 1938 when Hanya Holme, the choreographer, was asked by NBC, probably by David Sarnoff himself, to participate in an hour-long telecast to be shown at the 1939 New York World's Fair. For the hour show, NBC asked Judy Canova, the country-music comedienne, and Holme to share the time. Holme had about 20

minutes and she chose "Metropolitan Daily," a 20minute dance to music by former MIT professor Gregory Tucker. In addition to a troupe of dancers, there were Ruth and Norman Lloyd playing Tucker's score on one piano, four hands. There were no less than six weeks of rehearsal with camera and director. According to Norman Lloyd, "Everyone pitched in and made suggestions. The cameraman would recommend something to Hanya; Ruth would suggest a movement particularly effective for the camera. Since there was no intercom between the control room and the camera, the crew had to memorize the dance." The broadcast probably reached only a few hundred television sets. Several "firsts" were involved, the most important perhaps being that a commercial network was undertaking research and development for artistic purposes; no commercials interrupted the show! But it was expensive, as all research is, and with the interruption of the war, the concept was laid aside permanently in the network offices. The radical artist in our society was barred from television studios until 1967, when San Francisco's KQED was given a \$275,000 grant by the Rockefeller Foundation to bring artists in to work on a somewhat vaguely articulated project which, completed, made a notable contribution to the growing movement of video art. In KQED's "Heimskringla," a play by Paul Foster, with the La Mama Troupe of Ellen

Stewart directed by Tom O'Horgan and with music by composer Richard Feliciano, the concept of "videospace" was born, as was the idea and structure for the National Center for Experiments in Television, jointly funded by the Foundation and the Corporation for Public Broadcasting.

When the Foundation was given the opportunity of working with experimentalists in television in 1967, a Foundation officer named Boyd Compton presented the idea to the Director for Arts, the same Norman Lloyd who had shared that piano keyboard in the 1938 NBC experiment, and who had no difficulty understanding the importance of the project. It was a good day for both the Foundation and the movement. The Rockefeller Foundation's grants for experimental television stem from its interest in and support of the artist: the creative artist and those agencies and organizations which aid the artist to do work and then give the public access to it. Rockefeller's total financial outlay in this area has been \$2,030,500 between 1967 and 1974, a relatively small sum that has had a disproportionally high payoff. It should be noted that the Foundation had the advantage of working within a noncommercial system which owed its existence to the Ford Foundation's yearly support of almost \$10,000,000 to establish and maintain the broadcasting system we now enjoy. It has been said by others that without the participation of the Rockefeller Foundation in the field, much of
the work that has been done would have been delayed
by years. In a society where communication via
television has revolutionized daily living, provided
new formats of taking in information, and replaced
print concepts with programs of forceful if dubious
educational content, such a delay could not have
been an advantage.

In addition to its assistance to the three centers, which are now seen as an art network, the Foundation has initiated a program of developing experimental workshops at university and college campuses. This program, under the direction of NCET cofounders Brice Howard and Paul Kaufman, is spreading the technology and concepts of video art around the country with encouraging success. The Southern Methodist University concert mentioned earlier was produced by one workshop which almost immediately was given the status of Video Research Center by the SMU administration. Within two years of its founding in 1971, the Center has become a vital part of the Broadcast-Film Arts Division at SMU. At Southern Illinois University, the workshop at the Edwardsville campus has caused curricular revisions in the Broadcast Division to stress the approaches to television developed at the NCET. There is now a master's program in video art, and interdisciplinary work brings together artists and scientists in the

broadcast-standard SIU television studio. In the Department of Art and Design, a new academic program leading to a bachelor's degree in video art was established in 1973.

Similar workshops are being established at the Rhode Island School of Design, the University of California at Berkeley (whose Willard Rosenquist won a 1974 television Emmy award in the San Francisco area for his NCET-produced show "Lostine"), the University of Seattle, and scores of other campuses. This rapid spread of the artists' view of television is largely the result of Brice Howard's uncanny ability to communicate with youth and the development of his "Electric Notebooks," a series of didactic videotapes which were originated by artists at NCET and distributed to the workshops. (The "Notebook" series, too, won a 1974 Emmy.) When Kaufman and Howard began looking into the campus scene in 1971, with a \$300,000 grant from the Rockefeller Foundation, no one really knew how timely the venture was. Now it is clear that such efforts to involve undergraduates. graduates, and faculty in video art and interdisciplinary experiments in television, at major campuses over the United States where broadcast facilities exist, may actually revolutionize the medium from within, as the workshop-trained preprofessionals gradually move into the profession. The NCET campus workshop project has reached some

50 campuses, 15 of which were visited as many as three times. Hundreds of hours of tapes were shown and an appetite and enthusiasm was generated which should have future returns. Books and materials from the NCET workshop are used as the basis for most of the video art courses now being taught at various campuses and are about the only materials so far available. About six campuses now offer course work in video art which is directly attributable to the NECT's activities. In addition, a number of productions and presentations have been completed, and conferences and seminars organized for faculty and students of various campuses. The impact of this broad educational seeding has been an overwhelming positive reaction on the part of the students which has stimulated demands that departments offer experimental video work or broaden existing courses. There has been some resistance to including video studies in traditional art school curricula, but this will probably change as museums continue the pattern of including video in exhibitions. With the start of construction in 1975 of the Long Beach Museum of Art, to which David Ross (formerly Video Curator of the Everson Museum in Syracuse) has been appointed Assistant Director, and with the increased attention paid to video by museums across the country, it seems that the infiltration of video art has been complete.

Complete, that is, if we rule out broadcast television, whose audial aspect, which has had the least attention from manufacturers or network producers, is still more than an equal partner to its images. The Rockefeller Foundation intends to continue to look at the field of experimental television in the years ahead. Work will probably concern itself with continued campus development of experimental television workshops in collaboration with other disciplinary approaches, and with further development of the three major centers. How to use what has been developed is already being investigated as physicists, biologists, psychologists, humanists, and anthropologists are being invited or are asking to work with artists at the three centers and in the university settings. The NCET's pioneering work in conceptualizing the nature and uses of the medium is continuing in Paul Kaufman's research on humanistic usages of television, a project conducted at Harvard University. One result of his residency there was a week of broadcasting on the cable at Harvard which, on Monday, May 13, 1974, prompted the Harvard Crimson, one of the most influential collegiate newspapers in the world, to introduce the first of what was to become one of its regular features -- a televised segment. With print giving way to image at Harvard,

posture of the established intellectuals.

The broadcast orientation of WGBH's New Television

Workshop is an important foot in the door of broadcast television, and the new scientific and educational interests emerging at the WNET TV Lab should promote greater interdependence between the artist and nonartists.

a small fissure has opened in the antitelevision

The televisualists have not merely created new imagery through their imaginations or through the technology they invented, as logic became midwife to idea. They have raised issues and questions of importance to all -- to demographers, environmentalists, social scientists, men in the street -- concerned with the future of our planet as it faces a population explosion and the consequences of this geometric expansion on food supply, environment, and the quality of life in general. One problem, alas, is that the artist, speaking often in abstractions and metaphors, may be speaking prophetically, but the message is not always understood or heeded. In the last quarter of the twentieth century, at a time when the world requires the utmost in wisdom, loving kindness. patience, and vision, will our societies listen to the artist? And, listening, will they understand?

YEAR	RECIPIENT	AMOUNT	
1967	Bay Area Educational Television Association (KQED), San Francisco	\$	150,000
1967	WGBH Educational Foundation, Boston	\$	275,000
1970	WGBH Educational Foundation, Boston	\$	300,000
1971	Bay Area Educational Television Association (KQED), San Francisco	\$	300,000
1971	Educational Broadcasting Corporation (NET)	\$	150,000
1971	New School for Social Research	\$	14,500
1972	Educational Broadcasting Corporation	\$	400,000
1973	Electronic Arts Intermix, New York	\$	10,000
1973	Global Village Video Resource Center, Inc.	\$	25,000
1974	Everson Museum of ART of Syracuse and Onandaga County, New York	\$	5,000
1974	Bay Area Educational Television San Francisco	\$	51,000
L974	WCBH Educational Foundation	\$	250,000
1974	Bay Area Educational Television Association	\$	100,000
TOTAL			· · · ·
1967-1974	13	\$2,030,500	

DESCRIPTION	LENGTH OF GRANT	
Experimental workshop on television production techniques	2 Years	
Experimental workshop on television program concepts and production techniques	3 Years	
Bringing artists and scholars into residence at public television station WGBH to parti- cipate in its Project for New Television	3 Years	
Training professionally oriented students in the creative and artistic uses of television	4 Years	
Establishing an experimental television laboratory workshop	1 Year	
Establishing,in conjunction with Global Village, an experimental video workshop	1 Year	
Second phase of development of its Experimental Television Laboratory	3 Years	
International seminar/conference to explore the cultural potential of television, "Open Circuits."	1 Year	
Training program to develop methods of util- izing portable television as communications for developing countries	1 year	
Conference/workshop to introduce and explore video in a museum context	3 Months	
Research phase of a humanities television project	9 Months	
WCBH New Television Workshop	17 Months	
Further development of workshops in experimental television	1 Year	

THE NEW TELEVISION:

ESSAYS, STATEMENTS, AND VIDEOTAPES BY VITO ACCOMO!. JOHN BALDESSAR!, GREGORY BATTODOK, STEPHEN BECK. WILFEAMS BECKER, RENE BERGER, RUSSELL CONNOR, DOLG-LAS DAVIS, ED EMSHWILLER. HANS MAGNUS ENZENSBERGER. VILEM FLUGSER, HOLLIS PRAMPLION, FRANK GILLETTE, JORGE GLUSBERG, WULF HERZOGENRATH, JOAN JONAS, ALLAN KAPROW,

A PUBLIC/PRIVATE ART

DAVID KATZIVE, HOMARD KLEIM,
SHIGEKO KUBUTA, BRUCE KURTZ,
JAME LIVINGSTON, BARBARA LOMOON,
EDWORD LUCIE-SMITH, TUSHIO MATSUMUTO, JOHN MCHALE, GERALD
D'GRADY, MAM JUNE PALK, ROBERT
PINCUS-WITTEN, DAVID ROSS,
RIERRE SCHAEFFER, RICHARD SERRA,
MLISOM SIMMONS, GERD STERN,
MALISOM SIMMONS, GERD STERN,
MALISOM SIMMONS, GERD SZEEMAN,
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THIS BOOK IS EDITED BY DOUGLAS DAVIS AND ALLISON SIMMONS AND BASED ON 'OPEN CIRCUITS: AN INTERNATIONAL CONFERENCE ON THE FUTURE OF TELEVISION."

ORBANIZED BY FRED BARZYK. D. DAVIS. GERALD D'GRADY. AND WILLARD VAN DYKE FOR THE MUSEUM OF MODERN ART NEW YORK CITY.

THE NEW
TELEVISION:

A
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